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ABSTRACT

Teacher educators everywhere are examining programs and delivery modes as a result of a decade of studies and commissions on the reform of teacher education. However, for teacher education policy makers in developing areas, the contexts of teacher education hold special implications. The purpose of this paper is to identify a number of crucial contexts for teacher education planners in developing areas and to suggest some implications of these contexts for decision making. Five contexts are identified: (1) the current reform movement in teacher education; (2) the availability of resources for teacher education; (3) the use of teacher growth models as a conceptual basis for teacher education; (4) the attitudes towards national development; and (5) the professionalism of teachers. Two problem areas exist--the preservice/inservice linkage and the shortage of teachers. These problems are discussed in light of these contexts. (Author/JD)

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THE CONTEXTS OF TEACHER EDUCATION: IMPLICATIONS FOR DECISION MAKING IN TEACHER EDUCATION IN DEVELOPING AREAS

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ABSTRACT

Teacher educators everywhere are examining programs and delivery modes as a result of a decade of studies and commissions on the reform of teacher education. However, for teacher education policy makers in developing areas the contexts of teacher education hold special implications. The purpose of the current paper is to identify a number of crucial contexts for teacher education planners in developing areas and to suggest some implications of these contexts for decision making. Five contexts are identified: (i) the current reform movement in teacher education (ii) the availability of resources for teacher education (iii) the use of teacher growth models as a conceptual basis for teacher education (iv) the attitudes towards national development and (v) the professionalism of teachers. Two problem areas ((1) the preservice - inservice linkage, and (2) the shortage of teachers) are discussed in light of these contexts.

INTRODUCTION

The educational system in industrialized nations has come under close examination in recent years.

In the polls, in the media, and then quickly followed by the politicians, education has been receiving its fair share of public scrutiny. In the past decade in North America, there have been several major commissions and studies into education and a subsequent series of public prescriptions for revitalizing an educational system that some sectors of the public believe to be in a state of disorder.

Many of these commissions stemmed from a series of studies in the late 60's and early 70's that examined the relationship between student academic outcomes and schooling inputs and suggested that school level variables did not significantly affect achievement outcomes. Studies like those by Coleman (1966) and Jencks (1972) were just two of a larger number of studies that supported the notion that out of school factors were more important than school related factors in determining student achievement.

However, more recent and methodologically different research has challenged the notion that within school variables are not important. Many of these studies purport to show quite conclusively that what goes on inside schools does make a difference in student achievement and the researchers are not reticent in prescribing school level strategies to increase student productivity.

Teacher educators everywhere are finding themselves in the middle of this ongoing debate about teacher, teaching and school effectiveness. They are increasingly finding themselves fighting for scarce system-wide dollars, having to defend at a macro level the choice of teacher education as an investment choice, while at the same time having to prove to their school system clients that the teacher education process is effective in providing teachers who will make a difference in school productivity.

The purpose of this paper is to examine this context in which teacher educators in developing areas must plan and develop teacher education programs. There is a large number of issues that teacher educators in developing areas must grapple with. These include among others, a shortage of qualified teacher education candidates, a lack of institutional capacity, a system with teacher needs that usually outstrip capacity, a shortage of resources and a shortage of professionals prepared to be teacher educators. The environment or context for decision making are of considerable importance, especially in developing settings. Five particular environments or contexts relevant to decision making about teacher education in developing areas have been chosen for the current discussion. Implications for decision making in teacher education are suggested.

THE CONTEXT OF TEACHER EDUCATION IN DEVELOPING AREAS

(1) The Context of Reform: Current Perspectives in Teacher Education

In North America, teacher education has become the major focus of the public's search for both the source of and the solutions for the problems besetting the educational system. For instance, in the U.S., reports like the Carnegie Forum's and the Our Nation at Risk report and books by authors such as Sizer (1984) and Goodlad (1984), have singled out the teacher education process for special attention and remediation. Specific reports have responded to the challenge to reform teacher education and have provided a number of prescriptions for change (see, for example, The Holmes Group, 1986). In Canada, although there does not appear to be the same urgency to reform, there have also been both commissioned and scholarly analysis of the teacher education process (see, for example, Fullan and Connelly, 1987; Wideen and Holbourn 1986). Criticism of the teacher education process is not new. James Koerner's (Koerner, 1954) message in his 50's book "The Miseducation of American Teachers" is repeated in much of the reform literature today. However some aspects of the current reform literature are different and require special mention regarding the purposes of the present paper.

For instance, the more current reform literature applies the school outcomes research to both criticize teacher education and to suggest directions for reform. For instance, as recently as 1983 (Joyce, Hirsh and McKibben, 1983, there have been research results that question the impact of teacher qualifications (teacher education) on student learning. The more recent and different effectiveness literature counteracts this to a certain degree, but raises other issues as to what teachers should be taught in order to be more 'effective'. At any rate, perhaps more than ever before, there now appears to be a research base on teaching and learning that provides considerable of advice to teacher education policy makers.

Furthermore, in the current debate on teacher education reform there is a growing demarcation of theoretical positions or stances regarding the appropriate approach to teacher education. Grimmett (1988), for instance, suggests three current perspectives on teacher preparation: (i) a focus on the developing of technical proficiency in beginning teachers (eg. Fuller, 1969), (ii) the intellectual pedagogy approach (eg. The Holmes Group, 1986), and (iii) the developmental constructivist point of view. Without going into the various models in great detail, the major distinction between the three approaches appears to be the place of propositional or theoretical knowledge in education.

It is evident, that the teacher education process in industrialized nations is under considerable scrutiny and controversy. But more importantly, for the purposes of this paper, the current aspects the reform movement have implications for teacher education in developing settings. For example, evidence regarding the impact of teacher education upon educational productivity takes on extra significance in locations that must make careful investment decisions about scarce educational dollars. Furthermore, the centre of the current debate regarding the source and timing of presentation of theoretical and propositional knowledge in education may appear to be a relatively non-urgent and academic debate in industrialized nations. However, in developing settings where much of the theoretical knowledge is non-indigenous, likely extracted and researched in different settings or cultures, then the issue of source of theoretical knowledge and timing of presentation take on heightened significance.

(2) The Financial Context: Obtaining Resources for Teacher Education

Two aspects of the ongoing school quality and effectiveness debate are relevant for the consideration of the resources provided for teacher education in developing settings.

The first aspect is the consideration of education as a national investment. Perhaps as a result of some of the earlier educational outcome studies, many developing nation planning agencies began to question by the mid-seventies the value of increased spending on education. Many of these poorer countries were spending a disproportionate amount of their national budgets on education. Furthermore, educational aid agencies provided support for education development projects on the assumption that a more educated public would result in increased economic productivity and social change. Many of the expectations in this regard appear not to have been met (Psacharopoulos and Woodhall, 1985:15). In fact, from a most cynical perspective it could be suggested that "educational expansion, as we know it, does not necessarily make either people or countries more prosperous; instead it may and does leave the former without jobs and the latter with increasingly burdensome claims on public funds." (Weiler, 1986:4). Most optimistic are the claims of education as a prime agent for social change, equalization of opportunity and even revolution. Whatever the point of view, consistent in all current discussions about the relationship between education and development is a growing awareness that education is but one investment choice from a number of other choices that might promote national development. The early education productivity studies have tarnished education's reputation as one of these investments. Those seeking scarce public funds for education are having to provide better proof that the investment will work.

The second aspect is the consideration of resource allocation within the education sector itself. Having won a hard fight to have scarce public dollars allocated to education, educational policy makers must decide amongst a series of investment decisions at both a macro and a micro level. At the macro level, researchers have still not been able to agree on whether money is better invested in primary, elementary, secondary or tertiary education. Developed countries solve this dilemma by spending a fortune in all areas. In developing areas more careful decisions must be made, based upon the type of national development pursued. At the micro (school, classroom) level, the recent school effectiveness and instructional technology research purports to provide some of the answers to school productivity, suggesting that given specific cognitive outcome goals, some school activities are clearly regarded as better than others.

In the midst of all of this, teacher educators everywhere are fighting for their share of a shrinking or stabilized resource base for education. The concerns for efficiency and effectiveness in teacher education are exacerbated in developing countries. In many developing countries, a significantly larger percentage of the recurrent cost of schooling is allocated to teachers' salaries and, increasing teacher qualifications could be seen as an important way to improve both the educational system and even the economic prosperity of a nation. However, some studies (World Bank, 1974; Nolan, 1975; Simmons & Alexander, 1980) have thrown doubt on the importance of teacher training and qualifications (and teachers in general) for educational outcomes in developing countries. They put into question any increased resource allocation in this area, and in general any effort to raise the qualifications of teachers in developing countries. Other studies (Dove, 1986:196) reassessing the evidence on teacher effects on pupil achievement in developing countries have concluded otherwise and have suggested that teacher training makes a difference to attitudes, professional relationships and pupil achievement.

Most researchers (Dove, 1985; Wheeler, 1986) who have considered the input/output research have observed that home backgrounds appear more relatively important to pupil achievement in industrialized countries while school and teacher related factors are more important in developing countries. Dove (1985) suggested that this may be due to the incongruence between the home and school culture in developed nations. At any rate, the question of the relationship between teacher training, increased teacher effectiveness and national development, appears far from resolved and appears to be a more critical issue in developing settings than may be the case in more industrialized locations.

(3) The Context of Supply and Demand: The Quality/Quantity Crisis in Teacher Education

In Canada we are in the process of coming out of a 20 year period of an oversupply of teachers. In my home province of Ontario as recent as 3 years ago only 30% of our 4500 teacher graduates would obtain employment. This was the case even though the 10 Faculties in the province had gradually reduced their output from 15,000 to 4,500 over a 15 year period. In the context of an oversupply of teachers and, quite surprisingly, an over demand for places within the Faculties of Education (we currently have about 4 qualified applicants for each place in our Faculty) it has been easy to discuss teacher education reform. The situation is rapidly changing as a dramatic shortage of qualified teachers is fast approaching (Smith, 1988). We find ourselves in the ironic position of having a major report on the reform of teacher education (Fullan, 1988) and a major report on teacher supply and demand (Smith, 1988) both being released by the government at the same time. The former recommends significant qualitative changes in teacher education, all requiring additional resources both in time and money. The latter points out the massive increased output required over the next few years by these same Faculties who are, on the other hand, being urged to engage in qualitative program changes.

While the irony of the situation may be lost on many teacher educators in North America, this is far from a novel situation for teacher educators in developing areas. Rapidly expanding educational systems have made teacher shortages chronic. The combined effect of a dramatic shortage of qualified candidates for training as teachers and a restricted institutional capacity to train these teachers has made the reform movement in teacher education such as that discussed in North America largely irrelevant to teacher educators in many developing settings.

The supply and demand of teachers is a crucial context for planners of teacher education programs in developing areas.

(4) A Conceptual Context: Teacher Growth as a Conceptual Basis for Teacher Education

It has only been in recent years that we have extended to adults the notion of development and growth that we have applied with enthusiasm and rigor to children. As notions of child development theories have led many investigations into teaching and learning, so the modern educator now pays heed to the views that personal and professional development is ongoing through adult life and that the degree of development affects adult behavior and learning.

Specifically, regarding educators, there is considerable research to suggest that teachers function at different levels of growth on a number of dimensions, and researchers have been able to demonstrate that teachers at different development levels will exhibit different behavioral characteristics. Generally, teachers operating at a higher level of growth or development appear to be more flexible, empathetic, have a greater ability to cope, greater tolerance for stress and perhaps most importantly, are able to engage in more complex teaching behaviours than those operating at lower levels of growth. Their area of growth are relevant for the current discussion.

The Skills and Tasks of Teaching. We have come a considerable distance from the time when we searched for and made lists of desirable teacher traits and their relationship to student achievement. Most current researchers in instructional technology now focus on the actual behaviors and practices of classroom teachers and the relationships to student achievement. Clearly, for teacher educators, if we can identify the things that teachers do (beyond skill lists) that affect instruction, then we are getting closer to the desired knowledge base of a teacher education program.

Skill or task growth schemes have been developed on the basis of a number of assumptions. The first is that there is a vision of a teacher or educator as a higher order problem solver. One metaphor is the teacher (administrator) as a researcher or a hypothesis maker who is continually assessing the impact of instructional decision making on the learner. The second, is the assumption that there is some hierarchical ordering of identifiable behaviors from a lower (but acceptable) level to a higher (maximum effectiveness) level. Finally, there is the assumption that the teacher can grow to acquire the qualities necessary to achieve a higher order of sophistication of the tasks of teaching.

The Reflective Practitioner. A second approach to the image of the teacher as a higher order problem solver takes into consideration the notion of reflection. While most task lists of teacher growth are generated from research that describes what (good) teachers do, Schön (1983) would argue that to truly understand the profession, we must reject the view that the results of research govern professional practice through the process of simply applying the researched teaching tasks. Through an overreliance on the "technical rationality" mode of inquiry we have not paid sufficient heed to the uncertainty, complexity, instability, and uniqueness of decision making in the professional (teaching) situations. Schön (Schön, 1983, 1987) provides powerful arguments for re-conceptualization of the knowledge base of the professions. There is, he suggests, a form of "knowledge in action" ... and irreducible element of art in professional practice ... If the art is not invariant, known, and teachable, it appears nonetheless, at least for some individuals, to be learnable (Schön, 1983, 18).

Schön's discussion of the source of useful professional knowledge is especially important for any place that is considering the use of non-indigenous based teaching and teacher training practices. The growth schemes may provide a task inventory but the assumptions of Schön's notion of knowledge and practice might provide the key as to how to use the task inventories to guide in teacher education in developing settings.

Psychological Development of Teachers: There has been growing interest over the past few years in the application of theories of psychological growth and development to teacher development. For instance, Sprinthall and Thies-Sprinthall (1982) have pointed out that the traditional skills approach to teaching adults has little lasting effect and tends to "wash out -- from six to twelve months later". They proposed the notion of psychological development theory as a better basis for "directing constructs for teacher education".

Of particular relevance to the present discussion ins the evidence that teachers (and other professionals) measured at higher levels of psychological development on a number of dimensions (ego, moral, epistimilogical) function more competently, possess a wider repertoire of behavioral skills, engage in more complex behaviors, perceive problems more readily and respond more accurately and empathetically to the needs of others.

In summary, although simple observation might suggest that teachers operate at different levels, intellectually, practically, and attitudinally, the research on teacher growth provides evidence that the level of teacher growth does affect behavior in the classroom and that teachers who "grow" become "better" teachers, taking into consideration both various notions of growth and several concepts of better. In addition, it is appropriate that growth can occur in an ordered fashion and that it can be stimulated with appropriate intervention strategy.

In general, however, the clearest implication of considering a growth model for teachers is that the teacher education process should be viewed as a very long continuum, beginning at some point prior to the taking of pre-service training and continuing throughout the teacher's career.

The importance of a growth conception for teacher education in developing areas will be discussed in a later section of this paper.

(5) A Philosophical Context: The Relationship Between Education and National Development

An important context that teacher educators in developing areas must consider is the relationship between education and national development. There is a plethora of theories that purport to explain the causes of and the cures for national development. There are economic theories, welfare theories, evolutionary theories, neo-Marxist theories, modernization theories, psychological theories, deficiency theories, dependency theories, and so on. However, pervasive throughout the literature is a dichotomy between what could be called a "dominant" view of what development is and how it takes place and what is termed a "liberation" view of development is and how it takes place (Marshall, 1980). There are many points of difference between these two views of development, but the core difference is that the former would suggest that there are deficiencies (economic, social and cultural) in third world locations that can be remedied by the transfer or intervention of western (developed nations) strategies. The latter would see national development as a more complex process whereby individuals reflect on their own condition, their environment and their history to enable them to act in improving their own developing condition. Liberation writers use the term "praxis" or the ability to reflect and act on that reflection as a key condition to national development. The term development and the term `emancipation' become synonymous.

It is not the intent of the current paper to examine development theories in any great detail, however, some observations can be made in the context of teacher education in developing areas. First, the notion of praxis as a higher order or more mature view of national development is consistent with the `practice to reflection to practice' notion explicit in the earlier discussions of teacher growth. Attitudinal growth may be as important as intellectual and behavioral growth. Second, in the developing context, the growth of a personal view relating education to national development may be a necessary condition for pedagogical growth. There is no possibility, for instance, that Schön's notion of the reflective teacher is consistent with a teacher or a system that uncritically adopts and accepts the transfer of western based educational practices. On the other hand, the behaviorally and cognitively mature person will perhaps be the one who will best have the ability to apply to fullest advantage the best that the more industrialized nations have to offer. This might suggest, for instance, that the total and unfettered rejection of western based theories and practices although it represents a higher level of teacher growth than the unfettered acceptance, may itself be a lower level than `intelligent' or `reflective' application of these theories across cultures. Attitudinal growth regarding development issues may be a particularly salient concept for consideration of the development of teacher education models in developing settings.

(6) The Organizational Context: A View of the Teaching Profession

A second example of attitude growth relates to the development of a view of the teacher as a professional. All of the notions of teacher growth imply a view of teaching that goes beyond a `technical function'. The further a teacher grows beyond the `technical function' the more both the individual and the profession become more identified with the requirements of a profession. As will be discussed in a subsequent section of this paper, the development and growth of `professionalism' in teaching is a requirement not only to promote the types of growth discussed in this paper, but to address the dilemma of attracting qualified and desirable candidates to the teacher education process.

In my own setting I would have to admit that the excessive demand for places within our training program has much more to do with the substantial increases made in Canada over the past 20 years in teacher professionalism than with the nature of the experience we provide them once they are in the program.

Attitudinal growth regarding the concept (self concept) of the teacher as a professional is very salient in the context of a shortage of qualified teachers. However, for many developing settings, the `organizational context' mitigates against a view of the teacher as a professional. Many educational systems are centralized with very little of the decision making developed to the level of the classroom teacher. It is not uncommon for teachers to be part of the civil service where promotion is seniority based. Colonial legacies in the area of educational administration, promote a formal hierarchy in schools based upon position. These and other organizational or political issues affect the view of the teacher as a professional. This view in turn affects the planning of programs in teacher education in developing areas.

Consideration of these and other contexts will impinge upon decision making in teacher education. Two specific and crucial problem areas in teacher education in developing areas have been selected as examples for further discussion.

The Preservice - Inservice Continuum:

From the previous consideration of growth models it can be seen that it is likely impossible for most pre-service models to succeed in providing a system with a fully educated teacher capable of maximum effectiveness. It can be successful at providing the system with a functioning teacher, but one a long way from a final product. However, to move from this most obvious assumption to the need for continued in-service, to a functional model for teacher education, it is appropriate to consider the current debates on the appropriate assumption to guide the preservice experience.

As outlined earlier in the paper, there appears to be a debate centering around the location of theoretical or propositional knowledge in the preservice program. Some suggest we should focus on skills only, others suggest theory is the only appropriate approach while others suggest that practice is the only source of teachers knowledge. A consideration of the growth models helps to a certain degree to resolve this conflict.

For instance, the task or skill growth models would possibly support the suggestion that there are basic teaching skills that must be mastered before moving to higher order or more complex teaching strategies. Consequently, the focus of the pre-service program should be basic skill development in, for instance, areas such as concept teaching, along with a recognition of continuing development of higher order skills.

On the other hand, the cognitive growth model would support the view that discussion and analysis of propositional knowledge is crucial for promoting intellectual development and consequently the development of higher order teaching skills. This notion would support, for instance, the inclusion of Foundation courses in the preservice program since the examination of the psychological, sociological and philosophical basis of the current system provide an important context for teacher development and growth. Furthermore, this approach would support the examination of propositional knowledge in the establishment of attitudes towards the relationship between education and development.

However, Schön's (1983) concept of growth would support the view that propositional or theoretical knowledge about teaching stems only from practice. This view would support a pre-service program reconstructed around field (classroom) experiences. Although not fully articulated in an operational sense, the focus of the pre-service year could be seen as an experience - reflection - experience - reflected in an experience process. There would likely be little room in the pre-service program for traditional methods or Foundations courses.

The resolution of the conflict inherent in these views of the purpose and process of the pre-service program could come from the observation that the various notions of teacher growth represent different views or perspectives of the same growth continuum. To someone who has to make decisions about what should be in a pre-service program, this would suggest that, individually, each of the growth models and their concomitant view of what should be the focus of the pre-service program represents only a partial view of our responsibility. In very brief pre-service programs (in either concurrent or consecutive programs), we have a very short period of time to ensure a certain level of growth on all dimensions. To a certain degree, if one accepts this assumption, maintenance of any single growth perspective is replaced by the desire to provide a program that guarantees both basic skill/task competency and the development of a more cognitively mature and attitudinally aware person.

Although it goes beyond the scope of the present paper to present the specifics of a pre-service program, the following could be seen as appropriate recommendations for a pre-service program consistent with the assumptions of multidimensional growth.

(i) Identify a set of base level, achievable skills or tasks of teaching that can be achieved and measured in the course of a pre-service preparation period. A popular choice is to focus upon lesson planning and the instructional cycle.

(ii) Provide a setting where the future teacher can practice these skills and engage in a guided assessment of their successes or failures at practicing these skills.

(iii) Provide a setting for the prospective teacher to engage in guided reflection on his/her experience in the classroom in the context of their current knowledge base in education.

(iv) Provide an environment where the student is encouraged to reflect in practice, recognizing that much of the teaching act requires doing without knowing why. The learning of classroom management strategies is a good example where this type of learning environment is needed.

(v) Provide the environment to promote growth towards a personal view on the relationship between education and national development.

I wish I could share with you some examples of pre-service programs that follow as these suggestions and concomitant concern for growth in all of these areas. I can give you good examples of institutions who follow the "skills first ... think later" approach, and I can give examples of "theory first ... skills second" approach. But the third approach to teacher education is largely unoperationalized. Despite this I believe that it is an appropriate model or guide for pre-service program planning, as long as the support structures are put in place immediately for new teachers to continue growth in all areas. This means not only "how to" workshops, but opportunities for university course work in humanities and social sciences and opportunities for debate and reflection. The reason that we in Canada have failed to date in implementing this type of model is that we have not put in place the "teacher induction support structures" for teachers once they start teaching. Without this, we fear that the new teacher would be abandoned to their own resources and this has made us feel the need to provide more survival type training at the start of the teaching career.

However, we have learned some things about inservice or continuing teacher education. In Ontario we provide a plethora of university level courses for teachers. They are called Additional Qualification courses and address needs for teacher retraining and development in an identified area such as special education, mathematics, science, computers, and so on. Other than the internal satisfaction that comes from self-improvement, teachers are financially rewarded through salary increases for up to five of these courses in their career. The incentive results in 25% of teachers in our province at any one time taking these in-service teacher education courses. Unfortunately, survey data shows that a large majority of our teachers do not ever take any course or perhaps take one or two courses early in their career. Certainly once the financial incentive is gone so is the attendance. The point is, that from our experience, both in order to provide a guarantee to the pre-service program of a continued teacher development process and to guarantee a continued attendance in teacher in-service functions, ongoing teacher education programs must be both formally required and financially supported. Quite simply, teachers, be they either lazy or rich, should not have the opportunity of not participating in the continued teacher education process.

In summary, the consideration of growth models suggests that pre-service and in-service programs must be closely linked and commonly planned. The debate about skills versus theories is irrelevant since they are both necessary components of teacher growth.

In developing settings this could mean, in the first instance, an examination of the assumptions or the purposes of the pre-service program. However, most importantly is the necessity to consider formalizing for all teachers a life long certification process that ensures all are exposed to a growth facilitating environment. However, when the dramatic shortage of teachers in developing areas is combined with the chronic shortage of resources (lack of institutional capacity) for teacher education in developing areas, it is unlikely that the 'continuum' notion can be pragmatically applied. Shortages of teachers alone makes it difficult to either talk about extending preservice programs or to release existing teachers for continuing education.

It is my view that, given the necessity to choose a direction in which to apply scarce resources, then the continuing professional development function should receive priority. Put in functional terms I would rather see, for instance, a five year 'induction' program with marginal or no preservice program than a preservice program with no continuing professional development.

Increasing the Quantity of Qualified Teachers:

The situation in most growing nations is well documented. In many developing nations who have only recently adopted the policies of equal access and universal education, it is natural that the demands for qualified teachers will outstrip the supply. Indeed, even in stable growth nations teacher supply and demand appears to move in a cyclical pattern. Regardless of the reasons for teacher shortages in either developed or developing settings, the issue centres around a consideration of (i) selection or entrance to the profession or training period and (ii) institutional capacity to train the required numbers.

Selection to the Profession: Linkages between psychological development and higher order behaviors would suggest that in selecting students for teaching programs it would be appropriate to examine measures of psychological maturity. Unfortunately, although there are various tests of psychological maturity, none appear as of yet sufficiently reliable to use as a professional screening device. Similarly, the research on student selection for pre-service programs in education does not provide much support for extensive use of interviewing or experience profiles. By and large, academic average or some measure of scholarly success appears to be the major way of selecting individuals to the teaching profession in North America (Applegate, 1987). In one regard this poses a dilemma, since there is considerable

research (Shalock, 1979) suggesting that scholastic achievement/grades is not related to future success in life or in teaching. Sprinthall & Thies-Sprinthall (1982) argued that it is the psychological maturity of the candidate, not their grade that is important.

However, grades may not be the relevant issue. Although there may be a relationship between more education and the qualities of allocentrism, and flexibility, integrity, and so on that are identified by most of the growth theories as desirable in higher order qualities and behaviors, there does not appear to be any research to suggest that higher grades in that experience make a significant difference in that growth. Consequently, what may be more relevant is not the performance on the pre-education degree or educational experiences, but the nature of that pre-education academic experience.

This issue has particular relevance for educational policymakers in developing societies. Where scarce educational dollars are searching for a greatest return on investment, some econometric data (World Bank, 1974) suggests that higher education for teachers may be an inefficient investment. Indeed to develop and maintain a teaching body functioning at the lowest levels of complexity of practice then this indeed could be the case and, in fact, this may be a satisfactory goal for some developing educational systems. In the discussions of the various growth models, however. it should be clear that teacher growth to higher and more complex performance levels requires higher levels of psychological development. Similarly, to have a teacher workforce that supports the view of national development through praxis and liberation requires a teacher workforce with appropriately high levels of cognitive maturity.

However, decision making in this regard is constrained by several unfortunate assumptions.

The first is that teacher training remains in most developing locations a discrete activity that occurs at a certain time in one's life, and once completed is seen as preparing a person for a lifetime of teaching. Indeed if we were to constrain ourselves with this view then we should define `qualified' candidates at the highest academic level. But this is a false and damaging assumption. An essential premise of the growth models discussed in this paper is that teachers must grow to increase effectiveness and are quite capable of this growth. Quite simply, I see nothing wrong with selecting candidates for the teacher education process who are not academically qualified as long as a mind set and a structure is in place to ensure a lifetime continuum of growth. In real terms, find the level of education required to obtain the needed number of teachers, admit persons with these qualifications and begin the teacher education process.

A second assumption is the relationship between subject matter expertise and teaching expertise. There are those who would suggest the need for subject level mastery prior to teacher training and I do not have much argument with this premise. However, there are two corollaries to this view that are dysfunctional. The first is that the 'subject' focus must pervade all grade levels. The lower levels (ages 6-9 for instance) require a focus on the individual, not the student and a teachers pre-occupation with subject can be inappropriate. The second is the apparent prevailing view in many developing settings that the training of secondary teachers is a priority. I categorically reject that assumption and suggest that scarce teacher training resources should be directed at those prepared to work at the lower primary level, regardless of their academic background.

A third assumption concerns the role of teacher professionalism in the teacher education or development process. Candidates are not flocking to the profession in most developing settings. It is difficult to imagine why they should. The pay is poor, the conditions miserable and although in some countries the notion of teacher has some status, teachers (especially elementary level) in developing settings are not accorded a high professional status. This results in both a lack of interest in the profession as a whole and a low self concept in those that enter the profession.

Teachers' salaries, working conditions, etc. can go a long way in alleviating this concern and has certainly had such an effect in North America. However, I believe equally important as the 'extrinsic' issues are those relating to teacher growth. Selecting "poorly qualified" candidates for the teacher education process does not impinge upon the professionalism of teachers. Imbibing a professional attitude that reflects lifelong professional growth does affect the professionalism of teaching.

In summary, regarding the issue of a shortage of teachers, I have expressed the view that the 'qualifications' of teacher candidates are far less important than the teacher education process they enter into. Given the appropriate process and concomitant attitude that is reflective of growth, then the national teacher education program should set as an entry 'qualification' any level that is will get the candidates needed to meet the system demands for teachers. I have also suggested that it is appropriate to increase the professionalism of teaching, in particular at the elementary level. This can be done primarily by increasing extrinsic rewards and equalizing the rewards and requirements for teaching at all levels.

However, having increased the pool of qualified and willing candidates, planners must also be able to provide the institutional capacity and structure appropriate to teacher education.

Increasing Institutional Capacity: In Ontario we are currently faced with the awkward dilemma of a huge demand both for positions within the training program and for the products of the program. This places considerable pressure on the institutions to react by developing alternate routes to teacher certification. The issue in many developing stores may be slightly different in that the pool of academically qualified candidates may not be as high, but the issue of increasing institutional capacity is evident. There is a shortage of both space and adequately trained teacher personnel.

The most salient issue is a consideration of the alternate ways in which teacher education can be delivered and still maintain a high level of quality. For example, many countries have tried various delivery models including things like distance delivery through electronic media and multi-media packages. I personally have worked with such distance delivery formats and I am quite excited about their potential.

However, from my experiences and training as an instructional designer, I have learned that one chooses the purpose and objectives of the instructional task and then chooses the appropriate delivery mode. Teacher growth as an "instructional purpose" suggests some specific strategies to promote teacher growth both intellectually and behaviorally. Research in this regard (Glassberg and Oja, 1981) suggests that adults tend to stabilize at a particular stage of development and avoid significant change, making it difficult to create the dissonance producing experiences or reflective experiences necessary to facilitate cognitive growth. Generally the strategies used to create the "dissonance producing experiences" should involve some real (versus simulated) role taking experiences (Floden & Feiman, 1981); the activity should be personalized; the activity should occur over an extended period of time and allow for introspection and reflection (Denton & Seymour, 1977).

The important point to consider when considering teacher education programs is that intellectual and behavioral growth can occur serendipitously, but is best achieved through the careful designing of planned intervention strategies. Each of the growth areas (skills, intellectual, attitude) suggest appropriate and different delivery modes. My fear (often justified) is that the decision about delivery mode are made for reasons of expediency or fashion rather than through a consideration of the relationship between delivery strategy and growth. If a teacher education program exists as a series of lectures and exams, then increasing the instructional capacity is easy. Tape the lectures, send them throughout the country and administer annual exams. If a teacher education process is more than information transmission and includes modelling, discussion and analysis, then combinations of media are necessary.

SUMMARY AND CONCLUSIONS: TEACHER EDUCATION IN DEVELOPING AREAS

The purpose of this paper was to consider the contexts in which teacher educators in developing areas must make decisions about teacher education programs. Five salient contexts were identified: (i) The context of reform in teacher education (ii) The context of scarce resources (iii) The context of teacher growth as a conceptual basis for teacher education (iv) The context of the relationship between education and national development, and (v) The organizational/political context of education in developing areas. Implications of these contexts for the preservice - inservice continuum and for the supply-demand problem of teachers were suggested. However, in addition to these concerns, there are four general observations about teacher education in developing areas that require special mention and consideration by the planners of teacher education programs in developing areas.

The first observation concerns the end product of the teacher education process, or what it is that we see the product of our teacher education system being and doing (concomitantly what preparation and development are needed to achieve this goal?). As I would argue that clearly a focus for schools is to maximize the learning for the student, so I would argue that a major focus for teacher education activities should be the orderly development of the skills of teachers. However, schools obviously play a greater role in society than just knowledge transmission, and so does the mandate of the teacher education process go beyond the developing of pedagogical skill and its products. The role played by teachers in society and the expectations held by society for teachers have both broadened considerably over the past years. This is particularly evident in rural settings in developing societies where the teacher's role can be conceived as politician, community developer and change agent (Dove, 1985: 27-43). It is not the pursuit of technical or pedagogical proficiency by itself, important though it is, that is likely to create the kind of growth necessary for development. The essential prior condition for education to relate to development is the creation of a social consciousness, a commitment to community, and a sense of social responsibility which will give relevance to the pursuit of pedagogical proficiency.

A second observation relates to the relevancy of urban or western based educational practices (Marshall, 1983; Marshall, 1984; Anderson, 1985) for teacher education in developing areas. Should students in teacher training institutions be taught pedagogy and practices and skills that have not been developed in their own cultures? Traditionally, researchers and writers in this area focussed on the utility of applying a particular concept or skill across cultures. For example, the question could be asked whether Piaget's stages of development occur in children in all cultures or if cognitive styles are consistent across cultures (Anderson, 1983). If our only view of teacher education is one of a teacher learning skills and applying them, then this relevancy analysis is something we should lead our future teachers through. At the extreme, perhaps we should provide the teachers in developing

settings with extensive training in pedagogical skills that were researched in other cultures. If, however, we accept the notion of growth to higher levels of intellectual and practical performance such as, for instance, Schön identifies, then the teacher is not simply transferring and applying a pedagogical skill, but is 'reflecting in action' or processing a knowledge of the skill through their experience, through trial and error and through intuition. This suggests that a purpose of teacher education in a developing society is certainly not to teach in an unexamined way pedagogical skills and practices of other cultures. But more than that, it is crucial to provide an environment for reflection on these practices in light of the experiences and intuitions engendered in their own culture. Similarly, cross-cultural researchers might consider focussing not on the issue of whether a particular educational practice works in an non-indigenous culture, but how teachers process their knowledge of these skills into their own situation or culture.

A final observation is that developing areas have special concern about efficiency. Scarce resources in most developing contexts require a careful examination of what teacher education process is best applied to whom and to when. The discussion of teacher growth suggests that there will be wastage of resources if teachers are addressed below or above their development levels. But most importantly, the models provide clues as how to stimulate and provide the proper environment for this growth. We do not do a bad job of this in my home province of Ontario; however, to do so we annually spend an excess of thirty million Canadian dollars a year providing inservice and continuing development activities for twenty-five thousand or so teachers. An excessive application of resources such as this is needed to ensure, through overlap and repetition, the promotion of skill development in various teaching areas. Without the same option due to resource difficulties, teacher education in developing areas must pay more attention to (i) the complete teacher education growth continuum, (ii) the goals of the teacher education process at each stage of this continuum and (iii) finally, and perhaps most importantly must promote collaboration between the various agencies responsible for delivery of various stages of the continuum. If these ingredients are missing from the teacher education process, then the process will revert (continue?) to the teacher education practice of providing future and current practitioners with details of the science upon which we base our practice, without assuming any responsibility for guaranteeing (or at least monitoring) the growth of our teachers intellectually, attitudinally and behaviorally.

REFERENCES

Anderson, J.A. (1988). "Cognitive Styles and Multicultural Populations." Journal of Teacher Education, Jan.-Feb., 1988, 2-9.

Applegate, Jane (1987). "Teacher Candidate Selection: An Overview." Journal of Teacher Education, 38: 2-6.

Avalos, B. and Haddad, W. (1979). A Review of Teacher Effectiveness Research in Africa, India, Latin America, Middle East, Malaysia, Philippines, and Thailand: Synthesis of Results. Ottawa: International Development Research Centre.

Coleman, J.S., et al. (1966). Equality of Educational Opportunity. Washington, D.C., U.S. Government Printing Office.

Cruickshank, D.R. (1985). "Uses and Benefits of Reflective Teaching." Phi Delta Kappa, 66 (10), 704-706.

Denton, J.J. and Seymour, J. (1977). Acquisition of Higher Order Intellectual Skills. College Station, TX: Texas A & M University.

Dove, Linda (1986). Teachers and Teacher Education in Developing Countries. London: Croon-Helm.

Fagerlind, I. and Saha, C.V. (1983). Education and National Development: A Comparative Perspective. Oxford: Pergammon Press.

Feiman, S. and Floden, R.E. (1981). "A Critique of Developmental Approaches to Teacher Education." Action in Teacher Education, 3 (1), 35-38.

Fullan, M. and Connelly, M. (1987). Teacher Education in Ontario: Current Practice and Options for the Future, Toronto: Ministry of Education.

Glassberg, S. and Oja, S. (1981). "A Developmental Model for Enhancing Teachers' Personal and Professional Growth". Journal of Research and Development in Education, 14 (2), 59-70.

Goodlad, J.I. (1984). A Place Called School: Prospects for the Future, New York: McGraw Hill.

Gore, J. (1987). "Reflecting on Reflective Teaching". Journal of Teacher Education, March-April, 33-39.

Grimmett, P.P. (1988). Teacher Educators as Researcher: Cultivating Conditions for Reflective Practice in Teacher Preparation. Paper presented to Canadian Association of Teacher Education, Windsor, Canada, June 1988.

Harnett, A. and Naish, M. (1980). Technicians or Social Bandits? Some Moral and Political Issues in the Education of Teachers. In P. Woods (Ed.), Teacher Strategies, London: Croon-Helm, 225-274.

Heyneman, S.P. (1983). "Improving the Quality of Education in Developing Countries". Finance and Development, March, 18-21.

Jencks, C. et al. (1972). Inequality: A Reassessment of the Effect of Family and Schooling in America. New York: Basic Books.

Joyce, B.R., Hersh, R.H., and McKibbon, M. (1983). The Structure of School Improvement. New York: Longmans.

Joyce, B. and Showers, B. (1981). Teacher Training Research: Working Hypothesis for Program Design and Directions and Further Study. Paper presented to America Educational Research Association, Los Angeles, CA, 1981.

Marshall, D.G. (1980). Developmental Ethnocentricity and Project Leadership. Unpublished Ph.D. Thesis, University of Alberta, Edmonton, Alberta.

Marshall, D.G. and Earle H. Newton, (1983). The Certification of School Administrators in Manitoba: A Background Paper. Manitoba Education, Winnipeg, Manitoba.

Marshall, D.G. and Earle H. Newton, (1983). The Professional Preparation of School Administrators in Developing Countries. Occasional Paper Series #3. Centre for International Education and Development. Department of Educational Foundations, University of Alberta, Edmonton.

Marshall, D.G. (1984). Educational Administration in Developing Areas: A Role for Canadian Scholars. Canadian and International Education, Vol. 13, No. 1.

Psacharopoulos, B. and Woodhall, M. (1985). Education for Development: An Analysis of Investment Choices. World Bank, Oxford University Press.

Reyes, D.J. (1987). "Cognitive Development of Teacher Candidates: An Analysis". Journal of Teacher Education, March-April, 18-21.

Ryan, D. (1984). "Improving the Content and Process of Teacher Training and Staff Development". In D. Ryan and L. Anderson (Eds.), Rethinking Research on Teaching: Lessons Learned from an International Study. London: Pergammon Press.

Schalock, H.D. (1979). "Research on Teacher Selection". In D.C. Berliner (Ed.), Review of Research in Education, Vol. 7, Washington, D.c., A.E.R.A., 367-417.

Schön, D. (1983). The Reflective Practitioner: How Professionals Think in Action. New York: Basic Books.

Schön, D. (1987). Educating the Reflective Practitioner: Toward a New Design for Teaching and Learning in the Profession, San Francisco: Jossez-Bass.

Sprinthall, N. and Thies-Sprinthall, L., "The Teacher as Adult Learner: A Cognitive Developmental View", Staff Development, 82nd. NSSF Yearbook, University of Chicago.

The Holmes Group (1986). Tomorrow's Teachers. A report of the Holmes Group, East Lansing, MI: The Holmes Group.

Weiler, H.W. (1986). "Education and Development: Beyond the Age of Skepticism". Paper presented at the Joint Conference of the Stanford International Development Education Committee and the Comparative and International Education Society. Stanford, CA.